

**APPENDIX**

The below listing of cancelled claims 1-31, as edited below, are equivalent to new claims 64-94, respectively, and are listed below to assist the Examiner solely for the purpose of understanding the relationship between new claims 64-94 and cancelled claims 1-31.

1. (Cancelled) A method of controlling electronic mail (e-mail) message transmission over a network comprised of:

receiving, by a third entity, a first set of encoded e-mail addresses from a first entity, wherein said first set of encoded e-mail addresses represents e-mail addresses to which an e-mail message could be sent;

compiling, by said third entity, a second set of encoded e-mail addresses, wherein said second set of encoded e-mail addresses represents e-mail addresses to which an said e-mail message should not be sent; and

removing, by said third entity, from said first set of encoded e-mail addresses, each encoded e-mail address that is in said second set of encoded e-mail addresses thereby yielding a third set of encoded e-mail addresses, wherein said third set of encoded e-mail addresses represents e-mail addresses to which an said e-mail message may be sent; sent,

wherein a second entity is a source of said e-mail message.

2. (Cancelled) The method of claim 1 wherein ~~said step of receiving~~ said a first set of encoded e-mail addresses includes the step of receiving a first set of hash coded e-mail addresses.

~~receiving a first set of hash coded e-mail addresses.~~

3. (Cancelled) The method of claim 1 wherein ~~said step of receiving a first set of encoded e-mail addresses includes the step of:~~

~~receiving hash-coded e-mail addresses from an e-mail mass mailer; said first entity is an e-mail mass mailer.~~

4. (Cancelled) The method of claim 1 ~~further comprised of the steps of~~wherein removing, by said third entity, from said first set of encoded e-mail addresses, each encoded e-mail address that is in said second set of encoded e-mail addresses thereby yielding said third set of encoded e-mail addresses comprises:

sorting said first set of encoded e-mail addresses into a first ordered list of encoded e-mail addresses wherein said encoded e-mail addresses are in ascending order;

sorting said second set of encoded e-mail addresses into a second ordered list of encoded e-mail addresses wherein encoded e-mail addresses are in ascending order; and

beginning with a first entry in said first ordered list of encoded e-mail addresses, and beginning with a first entry in said second ordered list, comparing the first entry in said first ordered list to the first entry in said second ordered list then successive entries in said second ordered list, until the value of an entry in said second ordered list equals or exceeds the value of the first entry in said first list; and

removing the first entry from said first list upon the detection in said second ordered list of the first entry in said first ordered list, thereby yielding a ~~said~~ third set of encoded e-mail addresses, ~~to which an e-mail message may be sent.~~

5. (Cancelled) The method of claim 1 further including ~~the step of~~ sending said third set of encoded e-mail ~~address addresses~~ to an e-mail mass mailer via a data network.

6. (Cancelled) The method of claim 1 further including ~~the step of:~~  
identifying ~~e-mail address addresses~~ that are encoded in said third set of encoded e-mail  
~~addresses; addresses; and~~  
e-mail said e-mail message to said identified e-mail addresses.

7. (Cancelled) A method of controlling electronic mail (e-mail) message  
transmission over a network comprised of:

receiving, by a third entity, a first set of hash codes from a first entity, wherein said first  
set of hash codes represents e-mail addresses to which an e-mail message could be sent; each of  
which represents an e-mail addresses;

receiving, by said third entity, a second set of hash codes from a second entity, wherein  
said second set of hash codes represents e-mail addresses, each of which represents an e-mail  
addresses to which an said e-mail message should not be sent; and

removing, by said third entity, from said first set of hash codes, each hash code that is in  
said second set thereby yielding a third set of hash codes, wherein said third set of hash codes  
represents e-mail addresses each of which represents an e-mail addresses to which an said e-mail  
message may be sent; sent,

wherein said second entity is a source of said e-mail message.

8. (Cancelled) The method of claim 7 wherein ~~said step of receiving a first set of~~  
~~hash codes includes the step of:~~

receiving a first set of hash codes from a mass e-mailer, each of which represents an e-  
mail address, said first entity is an e-mail mass mailer.

9. (Cancelled) The method of claim 7 ~~further comprised of the steps of:~~wherein removing, by said third entity, from said first set of hash codes, each hash code that is in said second set thereby yielding said third set of hash codes comprises:

- i) sorting said first set of hash codes into a first ordered list of hash codes;
- ii) sorting said second set of hash codes; and
- iii) beginning with a first entry in said first ordered list of hash codes and beginning with a first entry in said second ordered list, comparing the first entry in said first ordered list of hash codes to said first entry in said second ordered list of hash codes and successive entries in said second ordered list of hash codes, until the value of an entry in said second ordered list equals or exceeds the value of the first entry in said first list, or until the last entry in the second ordered list of hash codes has been compared; and
- iv) upon the detection in said first ordered list of hash codes, of an entry in said second ordered list of hash codes that is identical to said first entry in said first ordered list, removing the first entry from said first ordered list.

10. (Cancelled) The method of claim 7 further including ~~the step of:~~ sending said third set of encoded e-mail addressaddresses to an e-mail mass mailer via a data network.

11. (Cancelled) A method of controlling electronic mail (e-mail) message transmission over a network comprised of:

receiving, by a third entity, a first set of hash codes from a first entity, wherein said first set of hash codes represents e-mail addresses to which an e-mail message could be sent; each of which represents an e-mail address;

receiving, by said third entity, a second set of hash codes from a second entity, wherein said second set of hash codes each of which represents an e-mail address to which said an e-mail message should not be sent; and

creating, by said third entity, a third set of hash codes that is comprised of the first set of hash codes minus hash codes that appear in the second set of hash codes, said third set of hash codes representing e-mail addresses to which an e-mail message may be sent; and,  
wherein said second entity is a source of said e-mail message.

12. (Cancelled) The method of claim 11 wherein ~~said step of receiving a first set of hash codes includes the step of:~~

~~receiving a first set of hash codes from a mass e-mailer, each of which represents an e-mail address; said first entity is an e-mail mass mailer.~~

13. (Cancelled) The method of claim 11 ~~further comprised of the steps of, wherein creating said third set of hash codes comprises:~~

- ~~i) — sorting said first set of hash codes into a first ordered list of hash codes;~~
- ~~ii) — sorting said second set of hash codes into a second ordered list of hash codes; and~~
- ~~iii) — creating a third set of hash codes by the steps of:~~

~~copying entries of said first ordered list of hash codes into a said third set of hash codes that do not exist in said second ordered list of hash codes.~~

14. (Cancelled) The method of claim 11 further including ~~the step of sending said~~ third set of ~~encoded e-mail address~~hash codes to an e-mail mass mailer via a data network.

15. (Cancelled) A method of controlling electronic mail (e-mail) message transmission over a data network comprised of:

receiving, by a third entity, a first set of hash codes from an e-mail mass mailer, said first set of hash codes being received via said data network, wherein said first set of hash codes represents e-mail addresses to which an e-mail message could be sent;

comparing, by a third entity, said first set of hash codes to a second set of hash codes, wherein said second set of hash codes represents e-mail addresses to which said e-mail message should not be sent; and

removing, by said third entity, from said first set of hash codes, hash codes that are in said second set of hash codes to yield a third set of hash codes that represents e-mail addresses to which said e-mail message may be sent; ~~sent~~.

wherein a second entity is a source of said e-mail message.

16. (Cancelled) The method of claim ~~16~~15 further ~~comprised of the step of~~ comprising sending said third set of hash codes back to said e-mail mass mailer.

17. (Cancelled) The method of claim 16 wherein said first and second sets of hash codes are comprised of alpha-numeric characters and are of the same length.

18. (Cancelled) A method of controlling electronic mail (e-mail) message transmission over a data network comprised of:

receiving, by a third entity, a first set of hash codes from an e-mail mass mailer, said first set of hash codes being received via said data network and representing e-mail addresses to which an e-mail message could be sent;

comparing, by said third entity, said first set of hash codes to a second set of hash codes, wherein said second set of hash codes represents e-mail addresses to which said e-mail message should not be sent; and

creating, by said third entity, a third set of hash codes that is comprised of hash codes in said first set of hash codes that are not in said second set of hash codes, wherein said third set of hash codes represents e-mail addresses to which said e-mail message may be sent,

wherein a second entity is a source of said e-mail message.

19. (Cancelled) The method of claim 19—18 ~~further comprised of the step of comprising~~ sending said third set of hash codes back to said e-mail mass mailer.

20. (Cancelled) The method of claim 19 wherein said first and second sets of hash codes are comprised of alpha-numeric characters and are of the same length.

21. (Cancelled) A method of controlling electronic mail (e-mail) message transmission over a network comprised of:

receiving, by a third entity, a first set of hash coded e-mail addresses from a first entity,  
wherein said first set of hash coded e-mail addresses represents e-mail addresses to which an e-  
mail message could be sent;

compiling, by said third entity, a second set of hash coded e-mail addresses, wherein said  
second set of hash coded e-mail addresses represents e-mail addresses to which an said e-mail  
message should not be sent;

identifying, by said third entity, hash coded e-mail addresses in said first set of hash  
coded e-mail addresses that do not appear in said second set of hash coded e-mail addresses; and

removing, by said third entity, from said first set of hash coded e-mail addresses, each  
hash coded e-mail address that is not in said second set of hash coded e-mail addresses thereby  
yielding a third set of hash coded e-mail addresses that represent e-mail addresses to which  
an said e-mail message may be sent; sent,

wherein a second entity is a source of said e-mail message.

22. (Cancelled) The method of claim ~~22-21~~ further including ~~the step of~~ sending said  
third set of hash coded e-mail ~~address~~ addresses to an e-mail sender via a data network.

23. (Cancelled) A method of sending an electronic mail (e-mail) message to a  
plurality of e-mail addresses comprised of:

hash coding, by a first entity, a first list of e-mail addresses to yield a first list of hash  
coded e-mail addresses, wherein said first list of hash coded e-mail addresses represents e-mail  
addresses to which an e-mail message could be sent;



hash coding, by a second entity, a second list of e-mail addresses to yield a second list of hash coded e-mail addresses, wherein said second list of hash coded e-mail addresses represents e-mail addresses to which said e-mail message should not be sent;

transmitting, by said first entity, said first list of hash coded e-mail addresses to an e-mail address filtration service provider;

transmitting, by said second entity, said second set of hash coded e-mail addresses to said e-mail address filtration service provider; and

creating, by said e-mail address filtration service provider a third list of hash coded e-mail addresses, wherein said third list of hash coded e-mail addresses represents e-mail addresses to which said e-mail message may be sent,

wherein said second entity is a source of said e-mail message.

24. (Cancelled) An apparatus for controlling electronic mail (e-mail) message transmission over a network comprised of:

a computer, operatively coupled to a data network, wherein said data network includes or is operatively coupled to a first entity and a second entity, and wherein said computer is capable of receiving therefrom said first entity, a first set of encoded e-mail addresses, wherein said first set of encoded e-mail addresses represents e-mail addresses to which an e-mail message could be sent, and wherein said second entity is the source of said e-mail message;

a first memory device, operatively coupled to said computer, said first memory device storing a second set of encoded e-mail addresses representing e-mail addresses to which an e-mail message should not be sent; and

said first memory device also storing program instructions which when executed by said computer cause said computer to:

\_\_\_\_\_store in said first memory device, at least part of said first set of encoded e-mail addresses;

\_\_\_\_\_remove from said first set of encoded e-mail addresses stored in said memory, each encoded e-mail address in said second set of encoded e-mail addresses that is also in said first set of encoded e-mail addresses thereby yielding a third set of encoded e-mail addresses, said third set of encoded e-mail addresses being encoded e-mail addresses to which an said e-mail message may be sent; and

\_\_\_\_\_store at least part of said third set of encoded e-mail addresses in said memory.

25. (Cancelled) The apparatus of claim ~~25-24~~ wherein said program instructions, when executed by said computer, further including a first memory device that stores program instructions which when executed cause said computer to sort said first set of encoded e-mail addresses.

26. (Cancelled) An apparatus for controlling electronic mail (e-mail) message transmission over a network comprised of:

a computer, operatively coupled to a data network, wherein said data network includes or is operatively coupled to a first entity and a second entity, wherein said computer is and capable of receiving therefrom said first entity: a first set of hash codes, wherein said first set of hash codes represents e-mail addresses to which an e-mail message could be sent, wherein said second

entity is the source of said e-mail message, and wherein said computer is also being capable of  
executing program instructions;

a first memory device, operatively coupled to said computer, said first memory device  
storing a second set of hash codes; and

said first memory device also storing program instructions which when executed by said  
computer cause said computer to:

store in said first memory device, at least part of said first set of hash codes;

remove from said first set of hash codes, each hash code in said second set of hash  
codes, yielding a third set of hash codes, said third set of hash codes representing e-mail  
addresses to which an e-mail message may be sent; and

store at least part of said third set of ~~encoded e-mail addresses~~ hash codes in said  
memory.

27. (Cancelled) The apparatus of claim 27, ~~wherein said further including a first~~  
~~memory device that stores program instructions, when executed by said computer, which when~~  
~~executed further~~ cause said computer to compare e-mail addresses that have been encoded using  
a hash code algorithm.

28. (Cancelled) The apparatus of claim 27, ~~wherein said further including a memory~~  
~~device that stores program instructions, when executed by said computer, which when executed~~  
~~further~~ cause said computer to sort hash codes that represent e-mail addresses.

29. (Cancelled) The apparatus of claim 27, ~~wherein said~~ further including a memory device that stores program instructions, when executed, ~~which when executed~~ further cause said computer to hash code a variable-length string of an e-mail ~~address-addresses~~ into a fixed-length string of alpha-numeric characters.

30. (Cancelled) The method of claim 1 ~~further including~~ including, ~~the step of:~~ prior to the step of receiving said first set of encoded e-mail addresses, specifying an e-mail address domain name and purging from said first set of encoded e-mail addresses, all encoded e-mail addresses associated having with said domain name.

31. (Cancelled) The method of claim 7 ~~further including the step of:~~ including, prior to the step of receiving said first set of hash codes, specifying an e-mail address domain name and purging from said first set of hash codes all hash codes associated with e-mail addresses ~~having~~ said domain name.